

Appl. No. 09/758,026
Amdt. dated February 12, 2004
Reply to Notice of Non-Compliant Amendment of January 14, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (currently amended): A pressure vessel comprising:

a seamless tank shell defining an interior space and having an outer surface wherein said tank shell is comprised of more than one boss[[es]], each of said bosses having a threaded portion; said outer surface having a fuel withdrawal assembly or a direct-sight fuel gauge mechanically fastened directly thereto; and said fuel withdrawal assembly includes a threaded portion engaged with said threaded portion of one of said plurality of bosses.

Claim 2 (withdrawn): The pressure vessel of claim 1, wherein:

said tank shell is comprised of a plurality of bosses, each of said bosses having a threaded portion; and

said fuel withdrawal assembly includes a threaded portion engaged with said threaded portion of one of said plurality of bosses.

Claim 3 (previously presented): The pressure vessel of claim 1 wherein said fuel withdrawal assembly is engaged with said one of said plurality of bosses by one and one-half revolutions of sealing force.

Claim 4 (currently amended): The pressure vessel of claim 3, wherein said fuel withdrawal assembly includes a withdrawal outlet piece capable of 360 degree rotation when engaged with said fuel withdrawal assembly[[;]].

Claim 5 (original): The pressure vessel of claim 4, wherein said one of said boss which is engaged with said fuel withdrawal assembly is substantially engaged with said interior space of

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said tank shell and said fuel withdrawal assembly extends less than 1.5 inches above said outer surface of said tank shell.

Claim 6 (previously presented): The pressure vessel of claim 5, wherein the fuel withdrawal assembly comprises a split-nut housing including two mated halves, said mated halves defining an interior space and forming a continuous threaded portion, and, said withdrawal outlet piece rotatably engaged within said interior space defined by said mated halves.

Claim 7 (original): The pressure vessel of claim 6, wherein said one of said plurality of bosses to which the fuel withdrawal assembly is connected is comprised of a substantially capped end, the fuel withdrawal assembly is comprised of a lower flange having a lower surface, and the lower surface engages the capped end to form a seal.

Claim 8 (previously presented): The pressure vessel of claim 7, wherein the pressure vessel comprises a direct-sight fuel gauge having a threaded portion engaged with said threaded portion of one of said plurality of bosses.

Claim 9 (previously presented): The pressure vessel of claim 8, wherein the direct-sight fuel gauge comprises:

a gauge neck having a lower portion having threads, an upper portion having threads, and an interior wall having a gauge cap having threads wherein the lower portion of the gauge neck is threadedly connected to said one of said plurality of bosses, the gauge cap is threadedly connected to said upper portion of the gauge neck.

Claim 10 (original): The pressure vessel of claim 9 wherein the tank shell is comprised of high-density polyethylene.

Claim 11 (original): The pressure vessel of claim 10 wherein the fuel withdrawal assembly is substantially comprised of 20% glass-filled polypropylene.

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Claim 12 (original): The pressure vessel of claim 11 wherein the threads of said plurality of bosses are buttress-style threads.

Claim 13 (withdrawn): The pressure vessel of claim 1, wherein:

said tank shell is comprised of a plurality of bosses, each of said bosses having a threaded portion; and

said direct-sight fuel gauge includes a threaded portion engaged with said threaded portion of one of said plurality of bosses.

Claim 14 (withdrawn): The pressure vessel of claim 13 wherein said direct-sight fuel gauge is engaged with said one of said plurality of bosses by one and one-half revolutions of sealing force.

Claim 15 (withdrawn): The pressure vessel of claim 14, wherein the direct-sight fuel gauge comprises:

a gauge neck having a lower portion having threads, an upper portion having threads, and an interior wall having two cradles and a plurality of tabs;

a gauge cap having threads;

a float arm having cross-bars; and

wherein the lower portion of the gauge neck is threadedly connected to said one of said plurality of bosses, the gauge cap is threadedly connected to said upper portion of the gauge neck, the cross-bars of the float arm are engaged with the cradles and said plurality of tabs secure the cross-bars engaged with the cradles.

Claim 16 (withdrawn): The pressure vessel of claim 15 wherein the tank shell is comprised of high-density polyethylene.

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Claim 17 (withdrawn): The pressure vessel of claim 16 wherein said threaded portions of said plurality of bosses are buttress-style threads.

Claim 18 (withdrawn): The pressure vessel of claim 13, wherein said tank shell is comprised of high-density polyethylene.

Claim 19 (previously presented): The pressure vessel of claim 1, wherein said one of said plurality of bosses to which the fuel withdrawal assembly is engaged is comprised of a substantially capped end, the fuel withdrawal assembly is comprised of a lower flange having a lower surface, and the lower surface engages the capped end to form a seal.

Claim 20 (previously presented): The pressure vessel of claim 1 wherein said tank shell is comprised of high-density polyethylene.

Claim 21 (withdrawn): A component in a mechanical system comprising:

a split-nut housing comprising two mated halves, wherein the mated halves define an interior space; and

a spool member captured and rotatable 360 degree within said interior space of said split-nut housing.

Claim 22 (withdrawn): The mechanical system component of claim 21, wherein the mechanical system component comprises a gas or liquid withdrawal assembly for use in a pressure vessel.

Claim 23 (withdrawn): The mechanical system component of claim 22, wherein the spool comprises a withdrawal outlet piece.

Claim 24 (withdrawn): The mechanical system component of claim 23, wherein:

the withdrawal outlet piece comprises, an upper flange, a lower flange and barbed portion located below the lower flange;

the split-nut housing comprising an exterior lower surface;

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the interior space comprising an upper flange space;

the upper flange space substantially surrounding the upper flange of the withdrawal outlet piece; and

the lower exterior surface of the split-nut housing contacting the lower flange of the withdrawal outlet piece;

Claim 25 (withdrawn): The mechanical system component of claim 22; wherein the mated halves of the split-nut housing form a series of threads.

Claim 26 (withdrawn): The mechanical system component of claim 23, wherein the threads formed by the mated halves of the mated split-nut housing are buttress-style.

Claim 27 (withdrawn): A direct-sight fuel gauge for a pressure vessel comprising:

a gauge neck comprising a lower portion having threads, an upper portion having threads, and an interior wall having one or more cradles and associated tabs;

a gauge cap having threads;

a float arm having cross-bars;

the gauge cap threadedly connected to said upper portion of the gauge neck; and

said tabs securing the cross-bars of the float arm in locking engagement with said one or more cradles.

Claim 28 (withdrawn): The direct-sight fuel gauge of claim 27, wherein the float arm is a one-piece, injected molded construction.

Claim 29 (previously presented): The pressure vessel of claim 9, wherein said interior wall of said gauge neck has two cradles and a plurality of tabs; a float arm having cross-bars; and said cross-bars of said float arm are engaged with said cradles and said plurality of tabs secure the cross-bars with the cradles.

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Claim 30 (previously presented): A pressure vessel comprising:

a seamless tank shell defining an interior space and having an outer surface wherein said tank shell is comprised of more than one bosses, each of said bosses having a threaded portion; said outer surface having a fuel withdrawal assembly or a direct-sight fuel gauge mechanically fastened thereto; and said fuel withdrawal assembly includes a threaded portion engaged with said threaded portion of one of said plurality of bosses; and

said fuel withdrawal assembly is engaged with said one of said plurality of bosses by one and one-half revolutions of sealing force; and

said fuel withdrawal assembly includes a withdrawal outlet piece capable of 360 degree rotation when engaged with said fuel withdrawal assembly; and

said one of said boss which is engaged with said fuel withdrawal assembly is substantially engaged with said interior space of said tank shell and said fuel withdrawal assembly extends less than 1.5 inches above said outer surface of said tank shell; and

the fuel withdrawal assembly comprises a split-nut housing including two mated halves, said mated halves defining an interior space and forming a continuous threaded portion, and, said withdrawal outlet piece rotatably engaged within said interior space defined by said mated halves; and

said one of said plurality of bosses to which the fuel withdrawal assembly is connected is comprised of a substantially capped end, the fuel withdrawal assembly is comprised of a lower flange having a lower surface, and the lower surface engages the capped end to form a seal; and

the pressure vessel comprises a direct-sight fuel gauge having a threaded portion engaged with said threaded portion of one of said plurality of bosses; and

the direct-sight fuel gauge comprises:

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a gauge neck having a lower portion having threads, an upper portion having threads, and an interior wall having a gauge cap having threads wherein the lower portion of the gauge neck is threadedly connected to said one of said plurality of bosses, the gauge cap is threadedly connected to said upper portion of the gauge neck.

Claim 31 (previously presented): The pressure vessel of claim 30, wherein said interior wall of said gauge neck has two cradles and a plurality of tabs; a float arm having cross-bars; and said cross-bars of said float arm are engaged with said cradles and said plurality of tabs secure the cross-bars with the cradles.

Claim 32 (previously presented): The pressure vessel of claim 30 wherein the tank shell is comprised of high-density polyethylene.

Claim 33 (previously presented): The pressure vessel of claim 32 wherein the fuel withdrawal assembly is substantially comprised of 20% glass-filled polypropylene.

Claim 34 (previously presented): The pressure vessel of claim 33 wherein the threads of said plurality of bosses are buttress-style threads.